

# Disposing of Wastes Generated at Construction, Demolition, or Renovation Sites

#### **Please Note:**

Be sure to check with local city and county officials for local ordinances and/or regulations regulating demolition projects. You may need a permit from the city and/or county where the demolition is to occur prior to beginning a demolition project.

## **Vegetative Wastes**

New construction, especially on previously undeveloped land, can generate leaf, brush, and woody wastes from land clearing which – under Indiana Code, IC 13-20-9 – are banned from disposal at solid waste landfills. Persons involved in land clearing activities do have the option to bury any vegetative wastes; such as leaves, twigs, branches, limbs, tree trunks and stumps onsite. However, because of the potential for future ground subsidence where large quantities of such material have been buried, the IDEM Office of Land Quality recommends that operators consider one of the options listed immediately below.

Vegetative and naturally occurring woody wastes can instead be taken to a registered yard waste composting facility. Vegetative wastes and chipped, ground, or shredded woody vegetative wastes could be composted onsite (although a registration process is required if more than 2000 pounds is to be composted) and the finished compost used onsite as a mulch, or worked into the soil as a soil amendment.

It also may be possible to burn the woody vegetation on site using an air curtain destructor provided prior approval is obtained from the IDEM Office of Air Quality (see the Permit Guide page on Open Burning for more details).

## Who May Be interested in Using a Construction or Demolition Debris Landfill

#### **Construction Debris**

Construction Debris Renovation and building sites usually generate scrap building materials. Although such construction debris may be disposed of at almost any solid waste landfill, it may be less expensive to haul it to a permitted construction/demolition (C/D) debris landfill rather than dispose of it at a municipal solid waste landfill. Anyone considering burying or burning construction debris should first read the material below.

#### **Burying Construction Debris**

Uncontaminated rocks, bricks, concrete, road demolition debris, and dirt are not subject to solid waste regulations (329 IAC 10-3-1 [WP file]), and therefore do not have to be disposed of in a landfill. Such debris may be left or buried on-site, or may be used off-site as fill, so long as it is not placed in a wetland or floodway. However, no other types of construction debris may be buried or left on-site. Some building materials can compress or decay over time such that structures built on unknown burial sites could, at some future date, be subject to subsidence.

#### **Burning Construction Debris**

Open burning also is not generally an allowable or safe alternative (see 326 IAC 4 [WP file]). In particular, builders should keep in mind that state rules allowing private residential burning do not apply to open

burning construction debris on residential building sites. Open burning of waste that is generated on a regular basis as part of routine business operations is prohibited.

Even when burning for heating purposes – which is allowed only from October 1 to May 15 – builders must conform to the state open burning rules, some of which include that;

- fires must be in a noncombustible container that is sufficiently vented to induce adequate combustion and has enclosed sides and a bottom (no fires on the ground),
- only clean wood products and paper may be burned (for example; no tar paper, shingles, plastic pipe, empty containers, etc.)
- burning must be done during safe weather conditions,
- fires must be attended,
- fires must be extinguished if they create a hazard, nuisance, pollution problem or threat to public health.
- adequate fire fighting equipment must be nearby, and
- burning activities also must comply with all other federal, state and local laws, rules and ordinances (For example, branches and twigs are the only wood products that may be open burned in those portions of Marion County incorporated into Indianapolis).

Furthermore, burning treated lumber – which has been saturated or coated with arsenic, chromium, copper, creosote, or other wood preservatives – is prohibited under all circumstances. There are documented instances of a single exposure to treated wood smoke causing serious harm to humans.

[It also is noteworthy that 326 IAC 4-1-5 states that:

"Any person who allows the accumulation or existence of combustible material which constitutes or contributes to a fire causing air pollution may not refute liability for violation of this rule (326 IAC 4-1) on the basis that said fire was set by vandals, accidental, or an act of God."]

No other open burning of construction waste is allowed without first obtaining a variance from IDEM.

#### **Grinding Construction Debris**

IDEM also allows clean (untreated) lumber, card board, and gypsum wallboard to be ground (wood must be ground into pieces of 2 inches or less, gypsum into pieces of 1 inch or less) and incorporated into the soil as mulch, as a soil amendment, or to facilitate erosion control or drainage.

For guidance on this methodology, contact the National Association of Home Builders to order a copy of "On-Site Grinding of Residential Construction Debris: The Indiana Grinder Pilot."

National Association of Home Builders 400 Prince George's Boulevard Upper Marlboro, Maryland, 20774 Phone: 301/249-4000

#### **Demolition Debris**

Renovation and demolition sites usually generate demolition debris. As with construction debris, disposal of demolition debris may be less expensive at a permitted construction and demolition debris landfill than at a municipal solid waste landfill. Anyone considering burying or burning demolition debris should first read the material below.

#### **Burying Demolition Debris**

Uncontaminated rocks, bricks, concrete, road demolition debris, and dirt are not subject to solid waste regulations (see 329 IAC 10-3-1), and therefore do not have to be disposed of in a landfill. Such debris may be left or buried on-site, or may be used off-site as fill, so long as it is not placed in a wetland or floodway. However, no other types of demolition debris may be buried or left on-site. It can include materials that can compress or decay over time such that structures built on unknown burial sites could, at some future date, be subject to subsidence.

#### Allowable Open Burning of Certain "Wooden Structures" or Demolition Debris

The open burning of certain "wooden structures," such as barns, out buildings, sheds, garages, corn cribs, outhouses, etc. is allowable, but only under the following circumstances:

The burning must take place in an unincorporated area and on the site where the structure is located (A person may not demolish a "wooden structure" and haul it outside the city limits to burn). If the "wooden structure" has an asphalt roof, vinyl or asphalt siding, wiring, or any material other than wood, concrete, brick, glass, or metal, that material should be removed so that the structure can be considered a "wooden structure."

All asbestos containing materials and treated lumber must be removed, and not burned. All such burning of "wooden structures" must conform to specific state guidelines and any local ordinances on open burning.

The debris remaining from burning a wooden structure must be properly disposed at either a permitted municipal solid waste landfill or a permitted construction/demolition debris landfill.

No other open burning of demolition waste is allowed without first obtaining a variance from IDEM. For further information on, or contact persons with whom to discuss, open burning issues, please visit the Open Burning page of the IDEM Permit Guide.

## **Asbestos Disposal**

Some, but not all, types of regulated asbestos containing materials (RACM) may be disposed of in a construction/demolition landfill.

**Friable asbestos** - that is, asbestos or regulated asbestos containing materials that are readily crumbled, or which have been shown to release asbestos fibers during normal handling and compaction activities at the disposal site (such as transite, slate board roofing), and therefore are capable of becoming airborne - may not be disposed of in a construction/demolition debris landfill. Friable regulated asbestos-containing materials must be disposed of in a state permitted municipal solid waste landfill.

All friable or potentially friable asbestos-containing materials must be removed from a building or other facility being demolished or renovated before any wrecking or dismantling takes place. All friable asbestos must be removed by an IDEM-licensed asbestos contractor using removal workers who wet the friable asbestos-containing materials to prevent emissions to the outside air and place it in a tightly sealed package labeled for proper disposal. (Facilities with substantial amounts of asbestos on site also may instead opt to have IDEM-licensed removal workers "in house" in lieu of an outside contractor.)

On the other hand, resilient floor coverings (including associated mastic) and asphalt-based siding and roofing shingles containing asbestos that are in good condition – that is, they are nonfriable; not readily crumbled or pulverized and therefore not as likely to become airborne – may be disposed at either a C/D debris landfill or a permitted municipal solid waste landfill (MSWLF) as solid waste. No bagging, labeling, special handling, permits, or additional fees are required by the IDEM.

Residential structures and apartment buildings with four (4) or fewer units are exempt from state and federal asbestos disposal requirements. However, homeowners and do-it-yourselfers are strongly urged to follow asbestos removal guidelines and to remember that even persons generating asbestos waste from a residence remain subject to 329 IAC 10-4-2, which states that "no person shall cause or allow the storage, containment, processing or disposal of solid waste in a manner which creates a threat to human health or the environment....." As a result, IDEM also recommends that such homeowners and do-it-yourselfers package asbestos waste in the appropriate manner prior to disposal. Personal protective equipment – protective coveralls and a respirator equipped with a high efficiency particulate air filter—should always be worn during a removal project. Coveralls and respirator filter cartridges should also be properly packaged prior to disposal.

## **Disposal of Lead-Based Paint Debris and Wastes**

Lead, a well documented source of health concerns, has historically been a component of many paints. Property owners sometimes undertake lead removal activities specifically intended to abate the potential hazards associated with lead-based paint. Or property owners may generate lead-based paint

contaminated materials during a structural renovation or demolition project not specifically designed for lead abatement. Debris generated from these activities falls into two categories, as follows:

#### Lead-based Paint Debris

All structural debris – architectural elements or features including, but not limited to, moldings, doors, trim, radiators, shelves, gutters, windows, cabinets, etc. – which is coated with lead-based paint may be disposed of at a C/D debris landfill, or at a municipal solid waste landfill. Similarly, metal components coated with lead-based paint may be recycled as scrap metal. However, please note that on December 18, 1998, EPA published proposed rules in the Federal Register to further regulate the disposal of lead-based paint structural debris. Those proposed rules are summarized in the IDEM guidance document "Managing Lead-Based Paint Waste" developed by the IDEM Office of Land Quality.

#### Lead-based Paint Concentrated Waste

The disposal requirements for the concentrated waste -- such as scrapings, sludge (from wet removal), dust, or blast grit -- generated by lead-based paint abatement or removal activities can vary substantially, depending on the source, the amount, or percentage of lead found in the concentrated waste. The disposal of lead-based paint is potentially regulated by RCRA (the Resource Conservation and Recovery Act) at 40 CFR (Code of Federal Regulations) Part 260

Because disposal requirements can vary, all generators of concentrated lead-based paint waste are encouraged to review the guidance document "Managing Lead-Based Paint Waste" prior to disposing of such waste. This includes "do-it-yourselfer" homeowners who, like any other waste generator, are subject to 329 IAC 10-4-2, which states that "no person shall cause or allow the storage, containment, processing or disposal of solid waste in a manner which creates a threat to human health or the environment....."

"Managing Lead-Based Paint Waste" includes discussions on the Handling and Disposal of both Residential and Non-Residential Lead-based Paint Waste, including discussions on lead-based paint abatement by a licensed contractor. It also discusses how generators of lead-base paint waste may have to have a waste determination performed on the lead-based paint waste to determine whether it is a hazardous waste, and defines Conditionally Exempt Small Quantity Generators (CESQG), Small Quantity Generator (SQG), or Large Quantity Generators (LQG) for those lead-based paint waste generators whose waste is determined to be hazardous. Persons undertaking lead-based paint abatement projects or other "deleading" activities need to keep in mind that if the waste they generate is hazardous, they may only store it on site for a limited time.

In addition, "Managing Lead-Based Paint Waste" discusses how lead-based paint waste from non-residential sources in quantities of greater than 220 pounds, and which is determined not to be hazardous waste, must be disposed of as an industrial process waste in a state permitted municipal solid waste landfill (Permitted Solid Waste Facilities Map - look for municipal solid waste landfills).

### A Permitted Construction/Demolition (C/D) Debris Landfill

Landfills, or cells within a landfill, which receive only construction and demolition debris are not required to be constructed to the same standards as are currently required for municipal solid waste landfills under subtitle D of RCRA (the Resource Conservation and Recovery Act); that is, they are not required to have a synthetic bottom liner, or monitoring wells. As a result, a C/D debris landfill generally is less expense to operate than a municipal solid waste landfill. (The initial application is \$11,300 less, permit renewal is \$8,200 less, and annual fees are from \$500 to \$33,500 less for a C/D debris landfill than for a municipal solid waste landfill.) It may, therefore, cost less to dispose of construction and demolition debris at such a facility than at a municipal solid waste landfill.

#### For Additional Information

To learn more about disposing of construction or demolition debris in a construction /demolition debris landfill, or to learn more about obtaining a permit to construct and operate a construction/demolition landfill, contact:

Jerry Rud

Phone: 317/232-7200

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#### **Disclaimer**

This permit guide is intended to provide background information which should be useful in planning for a particular project that may require an environmental permit. It does not substitute for consultation with the appropriate regulatory agency and/or the appropriate rules or statute.